

In the Claims:

1. (Currently amended) A high-voltage PMOS transistor ~~having~~ comprising:
an insulated gate electrode; (18),
a p-conductive source region (15) in an n-conductive well (11), ~~a p-conductive drain region (14) in a p-conductive well (12)~~ which is arranged on a p-conductive substrate; in the n well, and having a field oxide area (13) between the gate electrode and
a p-conductive drain region in a p-conductive well which is arranged in said n-conductive well; and [[,]]
an insulation area between said gate electrode and said drain region;
wherein the depth (A'-B') of the n-conductive well underneath ~~the~~ said drain region (14) ~~being~~ is less than underneath ~~the~~ said source region (15), and the depth (A'-C') of the p-conductive well being greatest underneath ~~the~~ said drain region (14).
2. (Currently amended) The high-voltage PMOS transistor as claimed in claim 1, ~~characterized in that~~ wherein the p-conductive well (12) extends laterally from the drain to the gate electrode (18).
3. (Currently amended) The high-voltage PMOS transistor as claimed in claim 1, wherein ~~or 2, characterized in that~~ the gate electrode (18) extends above an insulating layer (17) from the source region (15) as far as the field oxide (13) in the direction of the drain so that it covers the edge areas of the p-conductive well (12).

4. (Currently amended) The high-voltage PMOS transistor as claimed in claim 1, wherein one of claims 1 to 3, characterized in that a metal layer (19) extends at a predefined distance above the field oxide (13) and is connected to the gate electrode (18) by means of a via (20), and in that the metal layer extends over the field oxide area from the gate electrode in the direction of the drain.

5. (Currently amended) The high-voltage PMOS transistor as claimed in claim 1, wherein one of claims 1 to 4, characterized in that the p-conductive well (12) is more highly doped in the vicinity of the drain (14) than in the external area towards the transistor channel (K).

6. (Currently amended) The high-voltage PMOS transistor as claimed in claim 1, wherein one of claims 1 to 5, characterized in that the n-conductive well (11) has lower doping underneath the drain than in the area underneath the transistor channel.

7. (Currently amended) A mask for manufacturing an n-conductive well of a high-voltage PMOS transistor, in particular for a high-voltage PMOS transistor as claimed in one of claims 1 to 6, in which the area of the drain which is provided is covered with a drain cover, and a further cover between the areas which are provided for the drain and the source is produced at a distance from the drain cover.

8. (Canceled)

9. (Currently amended) The mask as claimed in claim 7, wherein 8, ~~characterized in that~~ the further cover ~~(22)~~ is embodied in a strip shape.

10. (Currently amended) The mask as claimed in claim 7, wherein ~~one of claims 7 to 9, characterized in that~~ the drain cover ~~(21)~~ is firstly widened in the vicinity of the transistor head (TK) and then tapers.

11. (Currently amended) The mask as claimed in claim 7, wherein ~~one of claims 7 to 10, characterized in that~~ the drain cover ~~(21)~~ extends in an arc in the vicinity of the transistor head (TK).

12. (Currently amended) The mask as claimed in claim 7, wherein ~~one of claims 8 to 11, characterized in that~~ the further cover ~~(22)~~ follows the profile of the drain cover in the vicinity of the transistor head, at a distance.

13. (Currently amended) A masking for manufacturing a p-conductive well of (12), in particular for a high-voltage PMOS transistor as claimed in one of claims 1 to 6, in which additional covers ~~(24,25)~~ are provided in certain sections between the central area (Z) and the edge area of the well which is to be produced, which widen in the direction from the source which is provided to the drain which is provided, and are spaced apart from one another.

14. (Currently amended) The masking as claimed in claim 13, ~~characterized in that~~ wherein the additional covers contain conically extending strips (24) ~~which widen from the source side edge area to the drain side area and are spaced apart from one another.~~

15. (Currently amended) The masking as claimed in claim 13, wherein ~~or 14,~~ ~~characterized in that~~ the additional covers (25) are formed in the vicinity of the transistor head as strips which are spaced apart from one another.

16. (Currently amended) The masking as claimed in claim 14, wherein ~~characterized in that~~ the strip-shaped additional covers are a plurality of strips which extend in an arc.

17. (Currently amended) The masking as claimed in claim 14, wherein ~~or 16,~~ ~~characterized in that~~ the strips extend in parallel at least in certain sections.

18. (Currently amended) A method for manufacturing an n-conductive well (11) and a p-conductive well (12), ~~in particular when manufacturing of~~ a high-voltage PMOS transistor as claimed in one of claims 1 to 6 having a p-conductive drain region in the p-conductive well which is arranged in the n-conductive well, in which the implantation of ions is carried out by means of masks or maskings in such a way that the doping depth of the p-conductive well is greater under the drain which is provided than in the direction of the well areas which are assigned to the source. ~~depth of the n well is less in the area of the drain which is provided than in the other well areas.~~

19. (Currently amended) The method as claimed in claim 18, wherein ~~characterized in that~~ the local conductivity of the p-conductive well is also determined by the doping of the n-conductive well.

20. (Currently amended) The method as claimed in claim 18, wherein ~~or 19, characterized in that~~ the well masking is carried out for the p-conductive well in such a way that the depth of the n-conductive well is less in the area of the drain which is provided than in the other well areas. ~~doping depth of the p-conductive well in the drain region which is provided is greater than in the direction of the areas which are assigned to the source.~~